AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-130. (Cancelled)

131. (Cancelled)

132. (Withdrawn) The process as recited in claim 131, wherein said at least one parameter is input by said patient.

133. (Cancelled)

134. (Withdrawn) The process as recited in claim 131, wherein said at least one parameter is a therapeutic response factor.

135. (Withdrawn) The process as recited in claim 131, wherein said at least one parameter is an electrophysiological parameter.

136. (Withdrawn) The process as recited in claim 131, wherein said at least one parameter is a three-dimensional data array of electrophysiological parameters.

137. (Withdrawn) The process as recited in claim 131, wherein said at least one parameter is a biochemical marker.

138. (Withdrawn) The process as recited in claim 137, wherein said biochemical marker is selected from the group consisting of lactate, C-reactive protein, oxygen, and carbon dioxide.

139. (Withdrawn) The process as recited in claim 131, wherein said at least one parameter is blood pressure.

140. (Withdrawn) The process as recited in claim 131, wherein said at least one parameter is blood flow velocity.

141. (Withdrawn) The process as recited in claim 131, wherein said at least one parameter is cardiac ejection fraction.

142. (Withdrawn) The process as recited in claim 131, wherein said at least one parameter is inferred from ultrasonic image data.

143. (Withdrawn) The process as recited in claim 142, wherein said at least one parameter inferred from ultrasonic image data is right ventricle volume.

144. (Withdrawn) The process as recited in claim 142, wherein said at least one parameter inferred from ultrasonic image data is left ventricle volume.

145. (Withdrawn) The process as recited in claim 131, wherein said at least one parameter is inferred from magnetic resonance image data.

146. (Withdrawn) The process as recited in claim 145, wherein said at least one parameter inferred from magnetic resonance image data is right ventricle volume.

147. (Withdrawn) The process as recited in claim 145, wherein said at least one parameter inferred from magnetic resonance image data is left ventricle volume.

148. (Withdrawn) The process as recited in claim 131, wherein said at least one parameter is a numerical values that quantifies a prior aspect of said patient.

149. (Withdrawn) The process as recited in claim 131, wherein said at least one parameter is predictive parameter of said patient.

150. (Cancelled)

151. (Cancelled)

152. (Cancelled)

153. (Cancelled)

154. (Cancelled)

155. (Cancelled)

156. (Withdrawn) The process as recited in claim 131, wherein said at least one command instruction of said algorithm instructs said direct mechanical ventricular assistance apparatus to provide training to said heart.

157. (Withdrawn) The process as recited in claim 131, wherein said at least one command instruction of said algorithm instructs said direct mechanical ventricular assistance apparatus to assist in regeneration of said heart.

158. (Cancelled)

159. (Withdrawn) The process as recited in claim 131, wherein said exporting of said at least one command instruction instructs the delivery of a first therapeutic agent.

160. (Withdrawn) The process as recited in claim 159, wherein said first therapeutic agent is selected from the group consisting of anti-inflammatory agents, gene therapy agents, gene transfer agents, stem cells, chemo-attractants, cell regeneration agents, ventricular remodeling agents, anti-infection agents, tumor suppressants, tissue and/or cell engineering agents, imaging contrast agents, tissue staining agents, nutrients, and mixtures thereof.

161. (Withdrawn) The process as recited in claim 131, wherein said exporting of said at least one command instruction instructs the delivery of a first regenerative agent.

162. (Withdrawn) The process as recited in claim 161, wherein said first regenerative agent is selected from the group consisting of tissue scaffold materials, biochemical materials, stem cells, and electrical stimulation.

163-244. (Cancelled)

245. (New) A method of treating a patient requiring heart function assistance or therapy comprising:

1) connecting the patient to a cardiac assist device, said device comprising:
   a) a compliant cup conformable to said heart throughout systolic and diastolic actuation, said cup having an exterior wall attached to an interior liner forming a continuous annular cavity between said wall and said liner; and
   b) a drive system in closed fluid communication with said cavity to effect displacement of said cavity;
   c) a sensor; and
   d) a control system in communication with said drive system and with said sensor;
2) collecting data from said sensor and importing said data into said control system;
3) using an algorithm to formulate a command instruction from said control system in response to said data; and
4) exporting said command instruction from said controller to said drive system to effect displacement of said annular cavity.

246. (New) The method of claim 245, wherein data imported into the control system corresponds to the fluid pressure within said annular cavity.

247 (New) The method of claim 245, wherein said command instruction maintains constant cardiac performance.

248. (New) The method of claim 245, wherein said sensor detects one or more of: device operational data; anatomical data; hemodynamic data; electrophysiological data; biochemical/biological data; acoustical data; tissue characteristic data; temperature data; optical data; and/or device mechanical data.

249. (New) The method of claim 248, further comprising one or more sensors remote to said cup.

250. (New) The method of claim 249, wherein one or more sensors is an electrophysiological sensor positioned externally on said patient.

251. (New) The method of claim 245, wherein said sensor is used to guide installation of the device and/or to assess cardiac performance under the influence of the device.

252. (New) The method of claim 245, wherein a sensor is used to confirm that the liner is conforming to, and is in contact with, an exterior surface of the heart corresponding to the right and/or left ventricles throughout systolic and diastolic actuation.

253. (New) A method of treating a patient requiring heart function assistance or therapy comprising:

1) connecting the patient to a cardiac assist device, said device comprising:
   a) a compliant cup conformable to said heart throughout systolic and diastolic actuation, said cup having an exterior wall attached to an interior liner forming an annular cavity having at least two chambers between said wall and said liner and wherein a chamber is in opposition to a left ventricle and another chamber is in opposition to a right ventricle; and
   b) a drive system in closed fluid communication with said cavity to effect displacement of said cavity;
   c) a sensor; and
   d) a control system in communication with said drive system and with said sensor;
2) collecting data from said sensor and importing said data into said control system;
3) using an algorithm to formulate a command instruction from said control system in response to said data; and
4) exporting said command instruction from said controller to said drive system to effect a change in volume of a drive fluid within said chamber opposing said left ventricle and/or a change in volume of a drive fluid within said chamber opposing said right ventricle.

254. (New) The method of claim 253, further comprising importing a drive fluid flow rate of said device into said controller.

255. (New) The method of claim 253, wherein said command instruction maintains constant cardiac performance.